

Pending Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (previously presented): A method to determine human sperm activity with human ova, comprising the steps of:

- (a) contacting glycosylated recombinant human zona pellucida protein 3, expressed from a human ovarian cell, with an appropriate amount of human sperm under conditions permitting the formation of a complex between the glycosylated human zona pellucida protein 3 and the sperm; and
- (b) determining the complex formed from step (a) as a measure of sperm activity.

Claim 2 (original): The method of claim 1, wherein the concentration of the human zona pellucida protein 3 is 0.01 nanograms per ml to 10,000 nanograms per ml.

Claim 3 (original): The method of claim 1, wherein the concentration is 0.01 nanograms per ml to 5,000 nanograms per ml.

Claim 4 (original): The method of claim 1, wherein the concentration is 0.01 nanograms per ml to 2,500 nanograms per ml.

Claim 5 (original): The method of claim 1, wherein the concentration is 0.01 nanograms per ml to 1,000 nanograms per ml.

Claim 6 (original): The method of claim 1, wherein the concentration is 0.01 nanograms per ml to 500 nanograms per ml.

Claim 7 (original): The method of claim 1, wherein the concentration is 0.01 nanograms per ml to 100 nanograms per ml.

Claim 8 (original): The method of claim 1, wherein the concentration is 0.01 nanograms per ml to 30 nanograms per ml.

Claim 9 (original): The method of claim 1, wherein the human zona pellucida protein 3, or the sperm, is fixed on a matrix.

Claims 10-18 (withdrawn)

Claim 19 (previously presented): A diagnosis kit for sperm activity comprising compartments with (a) glycosylated recombinant human zona pellucida protein 3, expressed from a human ovarian cell, and (b) one or more reagents selected from the group consisting of binding buffer, Ni-NTA resin, washing buffer, and a calcium ionophore control.

Claims 20-21 (withdrawn)